WHAT IS CLAIMED IS:

1. A conductor track structure on a non-conductive supporting material comprising a metallized layer applied to metal nuclei created by breaking up very finely distributed non-conductive metal compounds contained in the supporting material by irradiating portions of the supporting material with electromagnetic radiation, wherein the non-conductive metal compounds are thermally stable inorganic oxides which are stable and insoluble in aqueous acid or alkaline metallization baths, and which are selected from the group consisting of higher oxides having a spinel structure, and which remain unchanged in non-irradiated areas of the supporting material.

2. A conductor track structure according to claim 1, wherein the portions of the support material irradiated by electromagnetic radiation are ablated by the electromagnetic radiation and an adhesion promoting surface for the metallized layer is simultaneously formed thereon by the electromagnetic radiation.

3. A conductor track structure according to claim 1, wherein the non-conductive metal compounds contain copper.

4. A conductor track structure according to claim 1, wherein the non-conductive supporting material comprises a thermoplastic synthetic resin material.

5. A conductor track structure according to claim 1, wherein the non-conductive supporting material comprises a thermosetting synthetic resin material.

6. A conductor track structure according to claim 1, wherein the non-conductive supporting material contains at least one inorganic filler.

7. A conductor track structure according to claim 6, wherein the at least one inorganic filler is selected from the group consisting of silicic acid and silicic acid derivatives.

8. A method of producing a conductor track structure on a non-conductive support comprising:

- providing a non-conductive support having at least a surface formed of a non-conductive supporting material having at least one thermally stable, spinel-based, non-conductive metal oxide which is stable and insoluble in aqueous acid or alkaline metallization baths dispersed therein;

- irradiating areas of said support on which conductive tracks are to be formed with electromagnetic radiation to break down the non-conductive metal oxides and release metal nuclei, and

- subsequently metallizing the irradiated areas by chemical reduction.

9. A method according to claim 8, wherein said non-conductive support is provided by dispersing the non-conductive spinel-based metal oxide into the non-conductive supporting material and molding the supporting material containing dispersed metal oxide into a non-conductive support.

10. A method according to claim 8, wherein said non-conductive support is provided by dispersing the non-conductive spinel-based metal oxide into the non-conductive supporting material and coating a substrate with the supporting material containing dispersed metal oxide.

11. A method according to claim 8, wherein the electromagnetic radiation used to release metal nuclei simultaneously ablates the support and forms an adhesion-promoting surface.

12. A method according to claim 8, wherein the non-conductive metal oxide contains copper.

13. A method according to claim 8, wherein the non-conductive supporting material comprises a thermoplastic synthetic resin material.

14. A method according to claim 8, wherein the non-conductive supporting material comprises a thermosetting synthetic resin material.

15. A method according to claim 8, wherein the non-conductive supporting material contains at least one inorganic filler.

16. A method according to claim 15, wherein the at least one inorganic filler is selected from the group consisting of silicic acid and silicic acid derivatives.

17. A method according to claim 8, wherein the electromagnetic radiation is laser radiation.

18. A method according to claim 17, wherein the laser radiation has a wavelength of 248 nm.

19. A method according to claim 17, wherein the laser radiation has a wavelength of 308 nm.

20. A method according to claim 17, wherein the laser radiation has a wavelength of 355 nm.

21. A method according to claim 17, wherein the laser radiation has a wavelength of 532 nm.

22. A method according to claim 17, wherein the laser radiation has a wavelength of 1064 nm.

23. A method according to claim 17, wherein the laser radiation has a wavelength of 10,600 nm.